

What is claimed is:

1. A filter mounting mechanism for a vacuum cleaner, comprising:
 - a receiving space in the body of a vacuum cleaner, wherein the receiving space includes sidewalls and an open first end, and wherein the receiving space is configured to receive a filter element;
 - 5 a cover configured to cover the first end of the receiving space, wherein the cover is mountable on the receiving space; and
 - an interlock mechanism mounted on one of the cover and the receiving space, wherein the interlock mechanism is configured to prevent the cover from being mounted on the receiving space if no filter is mounted in the receiving space, and wherein the interlock mechanism is configured to allow the cover to be mounted on the receiving space if a filter is mounted in the receiving space.
2. The filter mounting mechanism of claim 1, wherein the cover comprises:
 - a planer surface that conforms to the shape of the first end of the receiving space, and
 - 5 a side edge that extends from a periphery of the planar surface at an angle relative to the planar surface, and wherein the side edge is configured to abut the sidewalls of the receiving space when the cover is mounted on the receiving space.
3. The filter mounting mechanism of claim 2, wherein the interlock mechanism is configured such that a confirmation piece of the interlock mechanism is located at a blocking position when no filter is mounted in the receiving space, and wherein the presence of the confirmation piece at the blocking position prevents the side edge of the cover from abutting the sidewalls of the receiving space.
4. The filter mounting mechanism of claim 1, wherein interlock mechanism include a confirmation piece that is movable between a blocking position and a mounting position, wherein when a filter is mounted in the receiving space, the confirmation piece is

located at the mounting position, which allows the cover to be mounted on the receiving space, and wherein when no filter is mounted in the receiving space, the confirmation piece is located at the blocking position, which prevents the cover from being mounted on the receiving space.

5 5. The filter mounting mechanism of claim 4, wherein the interlock mechanism includes an elastic member that urges the confirmation piece toward the blocking position.

 6. The filter mounting mechanism of claim 1, wherein the interlock mechanism is mounted on the cover.

 7. The filter mounting mechanism of claim 6, wherein the cover also includes a filter mounting portion that is configured to allow a filter to be mounted to the cover.

 8. The filter mounting mechanism of claim 7, wherein the interlock mechanism includes a confirmation piece that is movable between a blocking position and a mounting position, wherein when a filter is mounted on the cover, the confirmation piece is located at the mounting position, which allows the cover to be mounted on the receiving space, and
5 wherein when no filter is mounted on the cover, the confirmation piece is located at the blocking position, which prevents the cover from being mounted on the receiving space.

 9. The filter mounting mechanism of claim 8, wherein the interlock mechanism further comprises an elastic member that urges the confirmation piece towards the blocking position, and wherein the act of mounting a filter on the cover causes the confirmation piece to move to the mounting position against the action of the elastic member.

 10. The filter mounting mechanism of claim 9, wherein the cover comprises:
 a planer surface that conforms to the shape of the first end of the receiving space, and

5 a side edge that extends from a periphery of the planar surface at an angle relative to the planar surface, and wherein the side edge is configured to abut the sidewalls of the receiving space when the cover is mounted on the receiving space.

11. The filter mounting mechanism of claim 10, wherein when the confirmation piece of the interlock mechanism is located at the blocking position, the confirmation piece prevents the side edge of the cover from abutting the sidewalls of the receiving space.

12. The filter mounting mechanism of claim 1, wherein the cover includes a filter mount that allows a filter to be rotatively mounted to the cover.

13. The filter mechanism of claim 12, wherein the interlock mechanism includes a confirmation piece that is located at a blocking position when no filter is mounted on the cover, and wherein the act of rotatively mounting a filter on the filter mount causes the confirmation piece to move to a mounting position that allows the cover to be mounted on the receiving space.

14. The filter mechanism of claim 13, wherein the interlock mechanism further comprises an elastic member that urges the confirmation piece towards the blocking position.

5 15. The filter mechanism of claim 13, wherein the interlock mechanism of claim 13 includes an engagement portion configured to interact with a radially extending protrusion on a filter, and wherein the engagement portion is configured such that when a filter is rotatively mounted on the cover, the radially extending protrusion on the filter causes a movement of the interlock mechanism which causes the confirmation piece to be located at the mounting position.

16. The filter mounting mechanism of claim 12, wherein the filter mount on the cover includes a rotation prevention projection that is configured to prevent a filter from

being rotated onto the filter mount past a prescribed point.

17. A vacuum cleaner incorporating the filter mounting mechanism of claim 1.

18. A filter mounting mechanism for a vacuum cleaner, comprising:

a filter receiving space having an opening, wherein the filter receiving space is configured to receive a removable filter element;

a cover configured to cover the opening of the filter receiving space; and

blocking means for preventing the cover from being mounted on the filter receiving space if a filter is not mounted in the filter receiving space.

19. The filter mounting mechanism of claim 18, wherein the cover includes a filter mount that allows a filter element to be removably mounted to the cover, and wherein the blocking means is also mounted on the cover.

20. The filter mounting mechanism of claim 19, wherein the act of mounting a filter element on the filter mount of the cover causes a protrusion of the blocking means to retract to a mounting position that allows the cover to be mounted on the filter receiving space, and wherein when a filter is not mounted on the filter mount of the cover, the protrusion is located at a blocking position that prevents the cover from being mounted on the filter receiving space.